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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/728,150 | 12/03/2003 | Jin-Yuan Lee | JCLA8534-D | 6802 |
| 23900 | 7590 | 04/25/2005 | EXAMINER | |
| J C PATENTS, INC. 4 VENTURE, SUITE 250 IRVINE, CA 92618 | | | THAI, LUAN C | |
| | | | ART UNIT | PAPER NUMBER |

2891

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,150

Applicant(s)

LEE ET AL.

Examiner

Luan Thai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-9,13-17,25-29,176,177,180,186-189,193-196,200 and 202-230 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-9,13-17,25-29,176,177,180,186-189,193-196,200 and 202-230 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☒ Certified copies of the priority documents have been received in Application No. 10/055499.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/1/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office action is responsive to the amendment filed February 15, 2005.

Claims 1, 6-9, 13-17, 25-29, 176-177, 180, 186-189, 193-196, 200, 202-203 and newly added claims 204-230 are pending in this application.

Claims 2-5, 10-12, 18-24, 30-175, 178-179, 181-185, 190-192, 197-199, and 201 have been cancelled.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 6-9, 16-17, 25-27, 176-177, 180, 186-189, 196, 203, 207-209, 213-218, 222, and 225-227, are rejected under 35 U.S.C. 102(b) as being anticipated by Saia et al (5,874,770).

The figures and reference numbers referred to in this office action are used merely to indicate an example of a specific teaching and are not to be taken as limiting.

Regarding claims 1, 6-9, 16-17, 25-27, 176-177, 180, 186-189, 196, 203, 207-209, 213-218, 222, and 225-227, Saia et al (see specifically figures 7-8 and 11-12) disclose a chip package structure comprising: a plurality of integrated circuit dies (44)

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(Col. 7, lines 9+); a dielectric layer (10/40/42) over the die (44); a metal layer (47-48-52) (see figures 7-8 and 11-12) formed on the dielectric layer, extending to a place under which there is no integrated circuit die, and electrically connected to the dies (44) through conductive vias (41) (see figure 11); a dielectric layer (54) on the metal layer (22); passive devices including resistor (28), capacitor (37), and inductor (33) electrically connected to the integrated circuit die (see figures 7 and 12, Col. 6, lines 30-64); a substrate (45) having a cavity accommodating the integrated circuit die (44) and having a surface coplanar with an active surface of the integrated circuit die (44), and the metal layer (22) extending over the surface of the substrate.

3. Claims 1, 6-9, 13-15, 17, 25-26, 28-29, 176-177, 180, 186-189, 193-195, 200, 202-203, 207-208, 213-221 and 223-226 are rejected under 35 U.S.C. 102(b) as being anticipated by Eichelberger (6,159,767).

Regarding claims 1, 6-9, 13-15, 17, 25-26, 28-29, 176-177, 180, 186-189, 193-195, 200, 202-203, 207-208, 213-221 and 223-226, Eichelberger (see specifically figures 5-6) discloses a chip package structure comprising: a plurality of integrated circuit dies (102), wherein some of these dies comprises a capacitor or a resistor (Col. 8, lines 62+ and Col. 9, lines 1+); a dielectric layer (106) over the die (104); a metal layer (110) formed on the dielectric layer (106), extending to a place under which there is no integrated circuit die, and electrically connected to the dies (102) through vias (see figure 5f); a dielectric layer (150) on the metal layer (110); a film layer (104) around the integrated circuit die having a surface coplanar with an active surface of the integrated

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circuit die (102); a substrate (140) under the integrated circuit die (102) and under the film layer (104). Eichelberger further discloses at least a bump (152/154) (see figures 5g-5h) comprising solder or gold (Col. 11, lines 35+). Eichelberger also discloses one of passive devices, for example, component (220) disposed over the die (102) (see figure 6).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 204-206, 210-212 and 228-230 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saia et al (5,874,770).

Regarding claims 204-206, 210-212 and 228-230, Saia et al discloses the claimed invention as described above except for specifying the passive device comprising: a waveguide (as recited in claims 204, 210 and 228), a filter (as recited in claims 205, 211 and 229), or a MEMS (as recited in claims 206, 212 and 230).

Applicant's claimed structures in claims 204-206, 210-212 and 228-230, do not distinguish over the Saia et al. reference and it has been held that a recitation (e.g., a waveguide, a filter, or a MEMS) with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ F.2d 1647 (1987).

Therefore, it would have been obvious to one of ordinary skill in the art to have Saia's device structure to include active and passive components comprising at least a waveguide, a filter, or a MEMS as claimed, since such employed components does not differentiate the claimed apparatus from Saia's device structure.

6. The following reference(s) is/are cited as of interest to this application:

U.S. Pat. No. 6,486,535 (Col. 5, lines 26+) is cited for showing that the passive devices may include capacitors, resistors, inductors arranged as filters to suppress power source noises and attain speed-up of the operation of the chip.

U.S. Pat. No. 6,614,110 (Col. 4, lines 10+) is cited for showing that a MCM (multi-chip module) is common to comprise integrated circuit chips, passive devices, and a MEMS.

U.S. Pat. No. 6,205,032 (Col. 4, lines 32+) is cited for showing that waveguides can be considered as passive devices.

Conclusion

7. Applicant's arguments with respect to claims **1, 6-9, 13-17, 25-29, 176-177, 180, 186-189, 193-196, 200, 202-203** and newly added claims **204-230** have been fully considered, but they are deemed to be moot in view of the new grounds of rejection.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action because the changes (e.g., the deleted portions and underlined portions) in claims **1, 6-9, 13-17, 25-29, 176-177, 180, 186-189, 193-196, 200, 202-203** and the newly added claims **204-230** raise new issues that would require further consideration and/or search. Accordingly,

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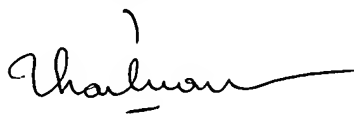
THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luan Thai whose telephone number is 571-272-1935. The examiner can normally be reached on 6:30 AM - 5:00 PM, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bradley W. Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Luan Thai

Primary Examiner

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April 15, 2005